

Virginia Regulatory Town Hall

Notice of Intended Regulatory Action Agency Background Document

Agency Name:	State Air Pollution Control Board
Regulation Title:	Regulations for the Control and Abatement of Air Pollution
Primary Action:	Article 9 (9 VAC 5-80-2000 et seq.) of 9 VAC 5 Chapter 80
Secondary Action(s):	None
Action Title:	Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas (Rev. D00)
Date:	April 17, 2000

This information is required prior to the submission to the Registrar of Regulations of a Notice of Intended Regulatory Action (NOIRA) pursuant to the Administrative Process Act § 9-6.14:7.1 (B). Please refer to Executive Order Twenty-Five (98) for more information.

Purpose *

Please describe the subject matter and intent of the planned regulation.

The purpose of the proposed action is to bring the regulation into compliance with federal regulations and policies, to include addressing offset ratios for emission reductions and increases in nonattainment areas based on the 1997 8-hour ozone air quality standard.

Statutory Authority

Please identify the section number and provide a brief statement relating the content of the statutory authority to the specific regulation contemplated.

Section 10.1-1308 of the Virginia Air Pollution Control Law (Title 10.1, Chapter 13 of the Code of Virginia) authorizes the State Air Pollution Control Board to promulgate regulations abating, controlling and prohibiting air pollution in order to protect public health and welfare.

Need *

Please provide an explanation of the need for the contemplated regulation and potential consequences that may result in the absence of the regulation. Also set forth the specific reasons the agency has determined that the proposed regulatory action would be essential to protect the health, safety or welfare of citizens or would be essential for the efficient and economical performance of an important

governmental function. Include a discussion of the problems the regulation's provisions are intended to solve.

One of the primary goals of the federal Clean Air Act (Act) is the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and the prevention of significant deterioration (PSD) of air quality in areas cleaner than the NAAQS.

The Act gives the U.S. Environmental Protection Agency (EPA) the authority to establish the NAAQS, which are designed to protect the health of the general public with an adequate margin of safety. The NAAQS establish the maximum limits of pollutants that are permitted in the ambient air. The Act requires that each state submit a plan (called a State Implementation Plan or SIP), including any laws and regulations necessary to enforce the plan, showing how the air pollution concentrations will be reduced to levels at or below these standards (i.e., attainment). Once the pollution levels are within the standards, the plan must also demonstrate how the state will maintain the air pollution concentrations at reduced levels (i.e., maintenance).

In 1979, EPA established a NAAQS for ozone of 0.12 parts per million (ppm). This standard was based on a 1-hour averaging period and is commonly called the 1-hour standard. When concentrations of ozone in the ambient air exceed the federal standard the area is considered to be out of compliance and is designated as "nonattainment." Numerous counties and cities within the Commonwealth have at one time been identified as ozone nonattainment areas according to the Act. Currently, all but the Northern Virginia area have reached attainment of the 1-hour standard.

The Act has a process for evaluating the air quality in each region and identifying and classifying each nonattainment area according to the severity of its air pollution problem. There are five nonattainment area classifications called marginal, moderate, serious, severe and extreme. Marginal areas are subject to the least stringent requirements and each subsequent classification (or class) is subject to successively more stringent control measures. Areas in a higher classification of nonattainment must meet the mandates of the lower classifications plus the more stringent requirements of its own class. If a particular area fails to attain the federal standard by the legislatively mandated attainment date, EPA is required to reassign it to the next higher classification level (denoting a worse air quality problem), thus subjecting the area to more stringent air pollution control requirements. The Northern Virginia Ozone Nonattainment Area is classified as serious and therefore has to meet the requirements for the marginal, moderate, and serious classes.

The Act contains comprehensive air quality planning requirements for areas that do not attain the federal air quality standard for ozone (that is, nonattainment areas). Once the nonattainment areas were defined, each state was then obligated to submit a SIP revision or plan demonstrating how it would attain the air quality standard in each nonattainment area. Failure to develop adequate plans to meet the ozone air quality standard: (i) will result in continued violations of the standard, (ii) may result in

assumption of air quality programs by EPA, at which time the Commonwealth would lose authority over matters affecting its citizens, and (iii) may result in the implementation of sanctions by EPA, such as more restrictive requirements on new major industrial facilities and loss of federal funds for highway construction.

The heart of the SIP is the control strategy. The control strategy describes the measures to be used by the state to attain and maintain the air quality standards. There are three basic types of measures: stationary source control measures, mobile source control measures, and transportation source control measures. Stationary source control measures are directed at emissions primarily from commercial/industrial facilities and operations. Mobile source control measures are directed at tailpipe and other emissions from motor vehicles, and transportation source control measures affect motor vehicle location and use. The Act mandates that all such plans require the implementation of all reasonably available control measures (RACM). One of the RACMs is to require preconstruction approval of new major facilities or modifications to existing ones.

In 1997, EPA established a more stringent NAAQS for ozone of 0.08 parts per million (ppm). This standard is based on an 8-hour averaging period and is commonly called the 8-hour standard. The establishment of this new standard triggered the need for EPA to designate new nonattainment areas. Northern Virginia is the only area that has not attained the 1-hour standard. If the standard is changed to a stricter 8-hour ozone standard, then more areas of the Commonwealth will be designated for ozone. EPA has indicated that, for the new 8-hour standard, the five-class system created under the Clean Air Act will not apply to these new areas.

A key control measure for managing the growth of new emissions is the permit program for new and modified stationary sources. The program requires that owners obtain a permit from DEQ prior to the construction of a new industrial or commercial facility or the expansion of an existing one. Program requirements differ according to the facility's potential to emit a certain amount of a specific pollutant and the air quality status of area where the facility is or will be located. Requirements for facilities considered major due to their potential to emit a specified pollutant are more stringent than for less polluting facilities. Requirements for major facilities in nonattainment areas are considerably more stringent than for those in areas which meet the standard.

Permits issued in nonattainment areas require the facility owner to apply control technology that meets the lowest achievable emission rate and to obtain emission reductions from existing sources. The emission reductions must offset the increases from the proposed facility by the ratio specified in the Act for that particular nonattainment classification. The offset ratio for areas classified as marginal is 1.1 to 1, for moderate areas 1.15 to 1, for serious areas 1.2 to 1, and for severe areas 1.3 to 1. For the new 8-hour standard, since no classification system exists, the offset ratio is 1 to 1. The current regulations do not address this 1 to 1 offset ratio and therefore must be changed to do so.

Potential Issues *

Please supply a statement delineating any potential issues that may need to be addressed as the regulation is developed.

1. To amend Article 9 of 9 VAC 5 Chapter 80 to reflect the permit requirements regarding emission offsets associated with the designation of nonattainment areas by EPA.
2. To amend Article 9 of 9 VAC 5 Chapter 80 to implement the requirements of any other pertinent federal regulations that may be promulgated during the regulation development process.
3. To amend other provisions of the new source review program as may be necessary to maintain consistency with the changes to Article 9 of 9 VAC 5 Chapter 80.
4. To update other regulations to be consistent with any other changes to federal or state mandates that may become known during the regulation revision process.

The discussion under the "Need" section above focuses on the first potential issue in this list. The main changes to the regulation needed to address this first potential issue involve adding provisions to allow for a 1 to 1 emissions offset ratio in nonattainment areas with no classification. Upon further review, other changes may be needed to address this first issue.

As for the other potential issues, whether they will need to be addressed will depend on whether EPA promulgates any other federal regulations affecting nonattainment new source review. Such regulations may be promulgated by the end of this year.

Alternatives *

Please describe the process by which the agency has considered, or will consider, less burdensome and less intrusive alternatives for achieving the need. Also describe, to the extent known, the specific alternatives to the proposal that have been considered and will be considered to meet the need, and the reasoning by which the agency has rejected any of the alternatives considered.

Alternatives to the proposed regulation amendments are being considered by the Department. The Department has tentatively determined that the first alternative is appropriate, as it is the least burdensome and least intrusive alternative that fully meets the purpose of the regulatory action. The alternatives being considered by the Department, along with the reasoning by which the Department has rejected any of the alternatives being considered, are discussed below.

1. Amend the regulations to satisfy the provisions of the law and associated regulations and policies. This option is being selected because it meets the stated

purpose of the regulatory action: to bring the regulation into compliance with federal regulation and policy pursuant to the federal Clean Air Act.

2. Make alternative regulatory changes to those required by the provisions of the law and associated regulations and policies. This option is not being selected because it will not ensure consistency with federal requirements.

3. Take no action to amend the regulations. This option is not being selected because it will result in the imposition of a federal program and possible sanctions.

Public Participation *

Please indicate the nature of the comments the Department is soliciting pursuant to this notice and whether a public meeting is to be held to receive comments on this notice. If a public meeting is to be held, indicate where information on the public meeting (i.e. date, time, and place) may be found. Indicate whether it is the Department's intent to hold at least one public hearing on the proposed regulation after it is published in the Virginia Register.

The Department is soliciting comments on (i) the intended regulatory action, to include ideas to assist the Department in the development of the proposal, and (ii) the costs and benefits of the alternatives stated in this notice or other alternatives.

A public meeting will be held by the Department to receive comments on and to discuss the intended action. Information on the date, time, and place of the meeting is published in the Calendar of Events section of the Virginia Register. Unlike a public hearing, which is intended only to receive testimony, this meeting is being held to discuss and exchange ideas and information relative to regulation development.

Ad Hoc Advisory Group *

Please indicate the extent to which the participatory approach will be used in the development of the proposed regulation. Indicate whether the Department is will be using an ad hoc advisory group in the development of the proposal.

The Department is soliciting comments on the advisability of forming an ad hoc advisory group, utilizing a standing advisory committee or consulting with groups or individuals registering interest in working with the Department to assist in the drafting and formation of any proposal. The primary function of any group, committee or individuals that may be utilized is to develop recommended regulation amendments for Department consideration through the collaborative approach of regulatory negotiation and consensus. Any comments relative to this issue must be submitted to the agency contact in writing by 4:30 p.m. the last day of the comment period.

Legal Requirements

Please identify the state and/or federal source of the legal requirements that necessitate promulgation of the contemplated regulation. The discussion of these requirements should include a description of their scope and the extent to which the requirements are mandatory or discretionary. Full citations for the legal requirements and, if available, web site addresses for locating the text of the cited legal provisions should be provided.

Federal Requirements

Federal Clean Air Act (CAA):

<http://www.epa.gov/ttn/oarpg/gener.html>

Code of Federal Regulations (CFR):

<http://www.access.gpo.gov/nara/cfr/cfr-retrieve.html>

Federal Register (FR):

http://www.gpo.gov/su_docs/aces/aces140.html

Sections 109 (a) and (b) of the Clean Air Act require EPA to prescribe primary and secondary air quality standards to protect public health and welfare, respectively, for each air pollutant for which air quality criteria were issued before the enactment of the 1970 Clean Air Act. These standards are known as the National Ambient Air Quality Standards (NAAQS). Section 109 (c) requires EPA to prescribe such standards simultaneously with the issuance of new air quality criteria for any additional air pollutant. The primary and secondary air quality criteria are authorized for promulgation under Section 108.

Section 110(a) of the Clean Air Act mandates that each state adopt and submit to EPA a plan which provides for the state's implementation, maintenance, and enforcement of the NAAQS. Among the primary elements of the state implementation plan (SIP) are (1) enforceable emission limitations and other control measures; (2) a program for enforcement of the emission limitations and schedules for compliance; and (3) programs for the regulation and permitting of the modification and construction of stationary sources, including a permit program as required by Part D of the Clean Air Act.

Part D describes how nonattainment areas are established, classified, and required to meet attainment. Subpart 1 provides the overall framework of what nonattainment plans are to contain, while Subpart 2 provides more detail on what is required of areas designated nonattainment for ozone, including requirements for new source review programs. It mandates a new and modified major stationary source permit program that meets the requirements of §§ 172 and 173.

Section 173(a) requires that permits meet the following criteria:

(1) Offsets must be obtained by new or expanding sources from existing sources so that total allowable emissions (i) from existing sources in the region, (ii) from new or modified sources which are not major emitting facilities, and (iii) from the proposed new source, will be less than total emissions from existing sources prior to the application for the permit.

(2) The proposed source must comply with the lowest achievable emission rate.

(3) The owner of the proposed source must demonstrate that all of their affected major stationary sources in the state either comply or are on a schedule for compliance with the emission limitations.

(4) The SIP must be adequate for the area in which the source is to be located.

(5) An analysis of alternative sites, sizes, processes, and environmental controls for the proposed source must demonstrate that its benefits significantly outweigh environmental and social costs.

Section 173(c) provides that the owner of the proposed new or modified source may obtain offsets only from the nonattainment area in which the proposed source is to be located. Offsets may be obtained from other nonattainment areas whose emissions affect the area where the proposed source is to be located, provided the other nonattainment area has an equal or higher classification and the offsets are based on actual emissions.

Section 182(a) sets out the offset ratio requirements for nonattainment areas, providing for a minimum ratio of total emissions reduction of VOCs to total increased emissions of VOCs. Currently, these offsets are 1.1 to 1 for marginal areas, 1.15:1 for moderate areas, and 1.2 to 1 for serious areas.

40 CFR Part 50 specifies the NAAQS: sulfur dioxide, particulate matter, carbon monoxide, ozone (and its precursors, volatile organic compounds) nitrogen dioxide, and lead.

40 CFR Part 51 sets out requirements for the preparation, adoption, and submittal of SIPs. Section 51.160 of Subpart I specifies that the SIP must stipulate legally enforceable procedures that enable the permitting agency to determine whether the construction or modification of a facility will result in a violation of a control strategy or interfere with attainment or maintenance of a NAAQS. Owners must submit information on the nature and amounts of emissions and on the location, construction and operation of the facility, and must comply with control strategies after permit approval. Section 51.163 requires that the SIP include administrative procedures to be followed in determining whether the construction or modification of a facility will violate control strategies or interfere with the attainment or maintenance of a NAAQS.

Section 51.165 of Subpart I describes what permitting requirements are to be contained in the SIP, and provides specific definitions of key terms such as "potential to emit," "major stationary source," "major modification," "allowable emissions," and "lowest achievable emission rate." This section requires that the SIP include a preconstruction review program to satisfy the requirements of §§ 172(b)(6) and 173 of the Act, and must apply to any new source or modification locating in a nonattainment area.

Family Impact Statement

Please provide a preliminary analysis of the potential impact of the proposed regulatory action on the institution of the family and family stability including to what extent the regulatory action will: 1) strengthen or erode the authority and rights of parents in the education, nurturing, and supervision of their children; 2) encourage or discourage economic self-sufficiency, self-pride, and the assumption of responsibility for oneself, one's spouse, and one's children and/or elderly parents; 3) strengthen or erode the marital commitment; 4) increase or decrease disposable family income.

It is not anticipated that these regulation amendments will have a direct impact on families. However, the Commonwealth hopes there will be positive indirect impacts in that the regulation amendments will ensure that the Commonwealth's air pollution control regulations will function as effectively as possible, thus contributing to reductions in related health problems and property damage.

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